



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-1067; Product Identifier 2018-NM-158-AD; Amendment 39-19641; AD 2019-10-02]**

**RIN 2120-AA64**

**Airworthiness Directives;** Saab AB, Saab Aeronautics (Formerly Known as Saab AB, Saab Aerosystems) Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. This AD was prompted by an event where the airplane did not respond to the flightcrew's flight control inputs because the pitch trim switches did not disconnect the autopilot. This AD requires modifying the wiring installation for the autopilot disconnect logic. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Saab AB, Saab Aeronautics, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; email [saab2000.techsupport@saabgroup.com](mailto:saab2000.techsupport@saabgroup.com); Internet <http://www.saabgroup.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-1067.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-1067; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax: 206-231-3220.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. The NPRM published in the Federal Register on February 7, 2019 (84 FR 2467). The NPRM was prompted by an event where the airplane did not respond to the flightcrew's flight control inputs because the pitch trim switches did not disconnect the autopilot. The NPRM proposed to require modifying the wiring installation for the autopilot disconnect logic.

We are issuing this AD to address events where the airplane does not respond to the flightcrew's flight control inputs because the autopilot remains engaged, possibly resulting in loss of control of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0240, dated November 7, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Saab AB, Saab Aeronautics Model SAAB 2000 airplanes. The MCAI states:

An occurrence was reported concerning a SAAB 2000 aeroplane, which was struck by lightning following a discontinued approach, with the auto-pilot (AP) engaged. After the lightning strike, the wings rolled level and the flight crew decided to climb but the aeroplane did not respond to flight control inputs as expected. Contrary to flight crew understanding, the pitch trim switches had not disengaged the AP and the flight crew attempts to override the AP inputs resulted in a temporary loss of control of the aeroplane.

This condition, if not corrected, could lead to further events where, without the flight crew being aware, the AP remains

engaged, possibly resulting in loss of control of the aeroplane.

Prompted by these findings, SAAB redesigned the AP disconnect logic, ensuring that the AP disconnects when either of the two main pitch trim switches on each control wheel are operated. SAAB also issued the SB [Service Bulletin 2000-22-008, dated June 15, 2018], providing modification instructions.

For the reason described above, this [EASA] AD requires a change to the AP disconnect logic by modification of the wiring installation.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-1067.

### **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comment received on the NPRM and the FAA's response to that comment.

### **Supportive Comment**

The commenter, Olivia Vincent, expressed her support for the NPRM.

### **Request for Additional Flightcrew Training**

The commenter, Olivia Vincent, observed that additional flightcrew training in the use of the Rockwell Collins FCC-4003 autopilot systems might be necessary if no further changes to the autopilot disconnect logic are issued.

We infer that the commenter is requesting a revision to this AD to include a training requirement. We disagree with the commenter's observation that additional flightcrew training might be necessary. The FAA has evaluated the need for additional flightcrew training and determined that the existing training is adequate and therefore additional training is not necessary. In addition, we have not received information from

the manufacturer or from EASA, the state of design authority for the Saab AB, Saab Aeronautics Model SAAB 2000 airplanes, regarding the need for additional flightcrew training or additional changes to the autopilot disconnect logic beyond those required by this AD. Furthermore, this AD does not change how pilots interface with the airplanes or autopilot. Instead, it requires modifying the wiring installation for the autopilot disconnect logic to ensure that the autopilot disconnects when either of the two main pitch trim switches are operated. We have not revised this AD in response to this issue.

### **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

Saab AB, Saab Aeronautics has issued Service Bulletin 2000-22-008, dated June 15, 2018. This service information describes procedures for modifying the wiring for the autopilot disconnect logic.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

We estimate that this AD affects 8 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

### Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
12 work-hours X \$85 per hour = \$1,020	\$8,750	\$9,770	\$78,160

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has

delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2019-10-02 Saab AB, Saab Aeronautics (Formerly Known as Saab AB, Saab Aerosystems):** Amendment 39-19641; Docket No. FAA-2018-1067; Product Identifier 2018-NM-158-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Saab AB, Saab Aeronautics Model SAAB 2000 airplanes, certificated in any category, all serial numbers.

**(d) Subject**

Air Transport Association (ATA) of America Code 22, Auto flight.

**(e) Reason**

This AD was prompted by an event where the airplane did not respond to the flightcrew's flight control inputs because the pitch trim switches did not disconnect the autopilot. We are issuing this AD to address events where the airplane does not respond to the flightcrew's flight control inputs because the autopilot remains engaged, possibly resulting in loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Modification**

Within 3,000 flight hours or 24 months after the effective date of this AD, whichever occurs first: Modify the wiring for the autopilot disconnect logic, in accordance with the Accomplishment Instructions of Saab Service Bulletin 2000-22-008, dated June 15, 2018.

**(h) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (i)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Saab AB, Saab Aeronautics' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(i) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0240, dated November 7, 2018, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-1067.

(2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax: 206-231-3220.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Saab Service Bulletin 2000-22-008, dated June 15, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Saab AB, Saab Aeronautics, SE-581 88, Linköping, Sweden; telephone +46 13 18 5591; fax +46 13 18 4874; email [saab2000.techsupport@saabgroup.com](mailto:saab2000.techsupport@saabgroup.com); Internet <http://www.saabgroup.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on July 3, 2019.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

[FR Doc. 2019-14726 Filed: 7/10/2019 8:45 am; Publication Date: 7/11/2019]